Before the FEDERAL COMMUNICATIONS COMMISSION Washington, D.C. 20554

In the Matter of)
Promoting Broadcast Internet) MB Docket No. 20-145
Innovation through ATSC 3.0)

Reply Comments of BitPath

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Table of Contents

	Summary	ii
	Comments of BitPath	1
l.	PK/CU/OTI's Comments Fundamentally Misstate the History of the DTV Transition and the Basis for and Purpose of Ancillary and Supplementary Service Fees	3
II.	The FCC Has Substantial Discretion to Set Ancillary and Supplementary Fees and May Set Fees at Zero in At Least Some Circumstances	8
III.	Ancillary Fees May Not be Based on the Auction Value of Wireless Licenses	9
IV.	The FCC Probably Doesn't Have Authority to Retain Ancillary Fees to Fund a Consumer Converter Program and Should Reject PK/CU/OTI's Bid to Use this Proceeding to Revise the Non-Degradation Requirement	11

Summary

The premise that broadcasters got their spectrum for free in a windfall pervades the comments of Public Knowledge, Consumers Union and OTI ("PK/CU/OTI"). But that's simply untrue. All original spectrum licenses issued by the FCC before 1994, including most broadcast licenses, many of the most valuable cellular licenses, the most important DBS licenses, and thousands of others, were issued without direct payment to the government. That doesn't mean they were "free" to the holders today, that the original licensees obtained some nefarious windfall that the FCC should now reach back in time to recompense, or that some additional and exceptional public interest obligations are due from broadcasters today because of a supposedly reaped by other licensees generations ago.

Neither did broadcasters get a second windfall worth \$70 billion, as PK/CU/OTI imagine they did, in the form of DTV transition channels, for which they are forever indebted to the FCC for some sort of amped-up public interest obligations that can take the form of any advocate's broadcast policy objective *du jour*. The narrative about DTV licensing that PK/CU/OTI relate in support of that premise is constructed from (charitably) misleading citations and faulty logic. Our reply comments address those shortcomings at length and are worth reading for that purpose alone. Broadcasters have public interest obligations for one simple and straightforward reason: because the FCC says they do. Those obligations don't expand and contract based on whether and how much they paid for their licenses.

PK/CU/OTI argue that the Commission lacks authority to set the ancillary fee at zero for any services. We disagree. Following reclamation of the "additional" licenses that facilitated the DTV transition the FCC isn't obligated to collect ancillary fees at all. And it certainly is not prohibited from setting the fee for a particular service at zero under all circumstances. It can, for example, waive the fee in order to incentivize investment and help jump-start the market, and begin to impose fees later when reported revenues are material.

PK/CU/OTI's assertion that ancillary fees should be based on the auction value of 600 and 700 MHz wireless licenses is untethered from any basis in law, regulation, or established policy. The statute is clear: fees must be based on the auction value of the particular service offered. Until a market has been established, the FCC would be reasonable to conclude that the amount a party would pay at auction for the right to construct broadcast facilities to provide (for example) a 500 kbps push data stream for seven years to devices that don't yet exist while simultaneously being obliged to provide free over-the-air television service and meet myriad costly operating, compliance and reporting rules, is close to zero.

We applaud the creativity, but the FCC probably lacks authority to use ancillary service fees to fund a converter box program as PK/CU/OTI urge it to do. And the assertion of PK and OTI behind that proposal – that broadcasters are trying to walk away from their promise to deliver NextGen services to the public – is flatly contradicted by the ongoing rollout of ATSC 3.0, through which stations have resoundingly exceeded all of the FCC's service preservation conditions.

The Commission should reject PK/CU/OTI's bid to use this proceeding to impose new non-degradation requirements on broadcasters. So doing would be beyond the scope of the NPRM. And the need for any such change would be unsupported – profoundly so – by the overwhelming evidence showing that broadcasters have exceeded the FCC's service requirements. Even if the FCC believed it should set some new minimum standard for what qualifies as "advanced" television service, the notion that it should mechanically define "advanced" with reference to a certain pixel count specified in a 1996 technical standard is obvious folly.

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Promoting Broadcast Internet Innovation through ATSC 3.0)) MB Docket No. 20-14)
)

Reply Comments of BitPath

BitPath¹ will limit its reply comments to responding to the opening comments of Public Knowledge, Consumer Reports, and New America's Open Technology Institute. We refer to those parties as "PK/CU/OTI" and to their comments as the "PK/CU/OTI Comments".2 In reading BitPath's reply we urge the Commission to consider two hard realities about the world in which any policy it adopts will play out.

First, for providers of broadcast television, as with all media services today, *remaining* static is not an option. All consumer-facing technologies are evolving and improving at a pace that would have astounded anyone in the mid 20th century, when the foundations of today's broadcast regulation were adopted. In fact, they would have astounded anyone in the 1990s, when those regulations were adapted to contemplate digital television broadcasting. The average smartphone replacement cycle is less than three years.³ But that's the hardware. Apple has released thirteen major updates to its iOS platform - about one per year - since it released the first iPhone.4 Each major update has included significant new technology and

¹ Spectrum Co, LLC d/b/a BitPath.

² Comments of Public Knowledge, Consumer Reports, and New America's Open Technology Institute, MB Docket No. 20-145, dated August 17, 2020.

https://www.statista.com/statistics/619788/average-smartphone-life/
 https://en.wikipedia.org/wiki/IOS version history

capabilities. Although the replacement cycle for television sets is longer, the frequency has been increasing. And "major" updates are the routine, whether in smart TV software or firmware, or through the addition of peripherals like Roku, Amazon Firestick, and others - each with their own frequent upgrade cycles. The only technology that has remained static is the free over-the-air version of broadcast television. BitPath finds it interesting that the same entities that worry that broadcasters won't continue to provide HD broadcasts ask the FCC to impose significant hurdles on broadcasters efforts to upgrade other aspects of their services – as if great television in 2020 is defined exclusively by reference to a pixel density that was impressive in 1996.

Second, *broadcasters have too little spectrum to upgrade seamlessly.* The routine upgrade cycle for consumer electronics and services requires providers that don't control the end-to-end ecosystem to support *at least* two generations of technology at once. Requiring all new releases to be backwards compatible is too constraining and ultimately counterproductive. Yet with only one RF channel per station, no station can, on its own, introduce new technology without disenfranchising viewers with older sets. This is an unhappy circumstance for broadcasters, to say the least. Yet PK/CU/OTI and others who favor innovation in other contexts criticize broadcaster's efforts to upgrade their services, as if broadcasters making the costly upgrade to ATSC 3.0 were deliberately setting out to disenfranchise their viewers. They apparently believe the public are best served, in perpetuity, by a static 1996 technology that always works but never improves.⁵

⁵ It's fair to question the assumption that ATSC 1.0 will always work. CE makers are not required to support it, and if consumers by and large have moved on to more capable platforms, CE makers won't include the capability in new units.

As we discuss below, PK/CU/OTI appear to think that even temporary one time use of transition channels was a multibillion dollar windfall for which broadcasters should continue to pay. Now that transition channels are no longer available on any basis, PK/CU/OTI and others who purport to represent the interests of the public at large could be more constructive if they acknowledged that single channel broadcasters will always have to make compromises to introduce new technology while serving consumers with the old.

I. PK/CU/OTI's Comments Fundamentally Misstate the History of the DTV Transition and the Basis for and Purpose of Ancillary and Supplementary Service Fees

Before addressing specific points made by PK/CU/OTI it is useful to address a few of the incorrect premises on which their arguments are based.

First, consider the premise that "broadcasters got their spectrum for free" as justification for policies that require broadcasters to do certain things and prohibit them from doing other things that, absent binding regulations, they might not want to do. That assertion pervades PK/CU/OTI's comments. But it's simply untrue. It is accurate to say that that most original broadcast licenses were issued before 1994 and that no spectrum licenses issued by the FCC before 1994 required any direct payment to the government. So the set of spectrum licenses originally issued without direct payment to the government includes the antecedents of most (but not all) broadcast licenses held today. But that set *also* includes the licenses (or antecedents) of the first (and still among the most valuable) CMRS licenses, point-to-point microwave licenses, the immensely valuable 2.5 GHz band licenses, the most valuable high power DBS licenses at 101 and 119 WL, and *all* other spectrum licenses issued before July 28, 1994.

Broadcasters today don't enjoy some exceptional "windfall" that was denied to other licensees, and few (if any) broadcasters got the licenses they hold for free. With perhaps a few exceptions, the vast majority of broadcast licenses held today were acquired through

transactions that valued those rights fully. Downstream purchasers of broadcast stations paid the prior sellers, back to the original licensees, for the franchise value of the licenses.⁶

Even the original licenses weren't gotten for "free". The FCC issued each pre-1994 spectrum license through a process that imposed costs, and no process was more expensive relative to the intrinsic value of the license than long, expensive comparative litigation pursuant to selection criteria designed to optimize the public interest rather than commercial viability. And the licensing process was just the beginning of the public interest undertaking for broadcasters, which then were and still are required to operate with a specific technology from specific sites and provide specific kinds of programming while foregoing economies of scale enjoyed by other holders of FCC licenses.

By comparison, wireline incumbents were simply handed the initial cellular licenses, and other cellular licenses were handed to applicants that relied on low cost application mills, with winners chosen by ping pong ball lottery. No payment to the government was required for the initial licenses and virtually no ongoing public interest obligations apply. The lottery also resulted in arbitrary⁸ selection of licensees, but at least it wasn't capricious. And the costs of the process were infinitesimal compared to the costs of comparative hearing litigation. Such were the lucky spoils of being licensed outside of Part 73 before July 1994. After 1994 most initial licenses

⁶ Van Gogh is believed to have sold only one or two paintings in his lifetime, having given away or exchanged some others for food and medical treatment. Vincent gave his brother Theo the famous *Arbres Dans Le Jardin De Lasile* in 1889. Last year it was acquired for \$40 million, and we doubt anyone argued the 2019 buyer got a windfall because of Theo's good fortune 130 years earlier. Just as Vincent's original generosity is irrelevant to the later transaction, the FCC's long-ago licensing policies are irrelevant to subsequent transactions.

⁷ The comparative hearing process was terminated after US Court of Appeals for the DC Circuit held what everyone who had ever engaged in the process already knew: that the selection preferences were arbitrary and capricious. *Bechtel v FCC*, 957 F.2d 873 (1993).

⁸ Cf. Bechtel, supra.

other than broadcast and satellite were awarded by auction, and since 1997, broadcast licenses have also been awarded by auction.⁹

PK/CU/OTI's comments perpetuate the related fallacy that broadcasters have special public interest obligations tied to a *second* supposed windfall. PK/CU/OTI write, "[i]t is important to remember the 'public interest' bargain under which broadcasters received what was estimated at the time as approximately \$70 billion dollars worth of new spectrum use rights." PK/CU/OTI Comments at 5.¹⁰ PK/CU/OTI then argues that the ancillary spectrum tax is a form of public interest payment for \$70 billion in "free" spectrum that broadcasters acquired in the form of the DTV transition channels.

This remarkable (and at best misleading) statement highlights another often-overlooked relic of the DTV transition that is worth clearing up. Broadcasters never got \$70 billion in free spectrum rights, or really, any new spectrum rights with any cash value. In the early 1990s broadcasters, CE makers, and the FCC were excited about the promise of digital television, but faced an intractable problem - the DTV standard wasn't backwards compatible with NTSC. So in order to bring DTV to the market broadcasters had to be able to serve two generations of receiver technology at once. Broadcasters asked Congress and the FCC to issue companion channels so they could launch DTV without immediately shutting down analog NTSC broadcasts. Opponents argued this would be a massive giveaway worth billions. According to the New York Times article PK/CU/OTI quotes, government economists estimated the additional

⁹ See Implementation of Section 309(h) of the Communications Act -- Competitive Bidding For Commercial Broadcast and Instructional Television Fixed Service Licenses, MM Docket No. 97-234, First Report and Order, (August 18, 1998).

¹⁰ PK/CU/OTI's source for that figure is a New York Times article from March of 1996. BitPath encourages anyone willing to give any credit to PK/CU/OTI's arguments to read the article first. The article is available online at https://www.nytimes.com/1996/03/18/business/digital-tv-dollars-dissent-political-battle-grows-over-use-new-broadcast.html. See Edmund L. Andrews, *Digital TV, Dollars and Dissent*, N.Y. Times, March 18, 1996.

licenses would be worth \$10 billion if auctioned. The article doesn't specify what sorts of licenses, or for how much spectrum, those estimated figures to.

What PK/CU/OTI overlooks (or hides) is the fact that broadcasters never got free additional channels worth \$70 billion, or even \$10 billion. They got temporary rights (really, an obligation) to use companion channels to transition to DTV, which they did at great cost and with no new and offsetting revenue. They also got the right (subject to FCC approval) to provide ancillary and supplementary services, subject to payment of an FCC-determined fee for certain types of such services, which we discuss below. The companion licenses were reclaimed long ago, and PK/CU/OTI would be hard pressed to present any evidence that any station even recovered the operating cost of its transition channel during the few years those channels were active. The 700 MHz band was then auctioned for flexible use and netted less than \$19 billion from carriers who are allowed to hold any amount of spectrum in any market and from coast to coast, with essentially no public interest obligations.¹¹

By far the biggest beneficiaries of the whole transition process were consumers (who got upgraded TV service without being disenfranchised), wireless carriers (who got large swaths of low-band UHF spectrum in perpetuity for one-time payments and without ongoing public interest obligations), and the US Treasury. Yet PK/CU/OTI and other anti-broadcast interests perpetuate the 1990s battle cry of a windfall spectrum giveaway to broadcasters, never mind how things turned out. The "free spectrum windfall" has been a reliable trope for anyone wanting the FCC to impose any costly constraint or new "public interest" obligation on

¹¹ See https://www.fcc.gov/auction/73/factsheet. Notably, given the strictures of FCC broadcast allocations and licensing rules, not all broadcast channels can be used in all locations, and the FCC dictates technology and coverage for those channels. So though the entire 700 MHz band auctioned in 2008 had previously been allocated to television broadcasting on a primary basis, the total of all television broadcast licenses in that band pre-auction represented a small fraction of the actual spectrum rights that were ultimately auctioned on a flexible use basis for mobile service.

broadcasters. Such is PK/CU/OTI's assertion that broadcasters have special public interest obligations because of their supposed \$70 billion spectrum windfall.

But there's no precedent to support the assertion that broadcasters have public interest obligations because the licenses were originally issued without payment to the government, or even because they were allowed (and basically required) to simulcast in both NTSC and ATSC 1.0 in connection with the DTV transition. Instead, they have public interest obligations because Congress and the FCC have said they do.¹² If PK/CU/OTI earnestly believed the public interest obligations sprang from the nature of pre-1990s FCC licensing it would be filing comments wireless and satellite proceedings arguing that those licensees owe substantial pubic interest dues because of their windfall free licenses.

We've taken this space to deconstruct the "free spectrum" narrative because its ongoing repetition is a pervasive impediment to rational spectrum and communications policy. It is incumbent on the FCC to permit and promote innovation and the best service to the public that that is consistent with its statutory mandates, which inevitably trail the rapid pace of innovation. It's not the FCC's job to select one of many regulated industries, reach back decades to reexamine long-abandoned licensing criteria, and impose some form of negative reparations for some perceived ancient windfalls.

An economist would see the missed opportunity of all the licenses that weren't auctioned before 1994 as sunk costs that should be ignored. In deciding how to facilitate innovation in broadcast ancillary and supplementary services we encourage the FCC to focus on creating the best incentives for that while not trying to read new punitive or remunerative requirements into 47 USC §336 based on false a narrative about spectrum windfalls. It is long past time stop

7

¹² If such were not the case, broadcast licenses issued at auction would be subject to lesser public interest obligations than licenses originally issued via comparative hearings. They aren't.

allowing this obsession with nonexistent windfalls to undermine rational decision making about how to best use our spectrum resources today. It makes no sense to compromise what is otherwise the best broadcast spectrum policy today in order to force today's licensees to make up for supposed benefits granted decades ago to somebody else.

II. The FCC Has Substantial Discretion to Set Ancillary and Supplementary Fees and May Set Fees at Zero in At Least Some Circumstances

PK/CU/OTI argue that collection of fees for ancillary services is mandatory and that the FCC has no discretion whatsoever. This is wrong. 47 USC §336(e)(1) expressly applies to licenses issued pursuant to 47 USC §336(a), which were the "additional licenses for advanced television service" (emphasis added). 47 USC §336(a)(2) requires the FCC to "adopt regulations that allow the holders of such licenses to offer ancillary and supplementary services." "[S]uch licenses" inarguably refers to the additional licenses the Commission was authorized to provide to broadcasters for purposes of the transition.

In light of the history recounted above, this makes perfect sense. It was expected that the FCC would award transition channels, but no one in the 1990s knew how long broadcasters would hold those additional channels, and many suspected the broadcasters would never give them up. The second channels were awarded to facilitate the transition. If broadcasters kept their original channels and used the additional, second channels to generate substantial non-broadcast revenue – rather than merely to facilitate the transition – the revenue might be seen as a potential windfall. To prevent any perceived unjust enrichment, Congress required the FCC to assess fees with respect to certain ancillary services provided on the *additional* DTV transition channel issued to each broadcaster, capped at the amount that would have been recovered had the services been auctioned. Nobody then was arguing that broadcasters got a windfall simply by retaining their original licenses – it was the *additional* licenses that were viewed as a potential windfall if not promptly relinquished. So far at least, even PK/CU/OTI

haven't argued that broadcasters should have been required to bid at auction for the licenses they already held.

PK/CU/OTI argue that the statute prohibits the FCC from setting the fee at zero under any circumstances because §336(e)(1) states the FCC "shall" establish a program to collect fees, the purpose of which program is to recover a portion of the value of the spectrum for the public and to prevent unjust enrichment. But those very general requirements leave much room for discretion. After all, it is the purpose of the *program* to meet the statutory objectives. There is no requirement that all services be feeable all the time. The Commission is free to (and indeed, under §336(a)(2) it must) exercise its discretion to permit ancillary services, if at all, in a manner consistent with other public interest objectives, including innovation and competition. As we noted in our opening comments, the Commission can best facilitate innovation by encouraging investment, and the best way to do that is to collect gross receipts fees only after broadcasters have recovered their investments made in order to bring such services to market.

III. Ancillary Fees May Not be Based on the Auction Value of Wireless Licenses

Section 336(e)(2)(B) is clear that the fees for ancillary services to be collected may not exceed "the amount that would have been recovered had such services been licensed pursuant to the provisions of Section 309(j)" PK/CU/OTI suggest that the proxy for the auction value should be \$40 billion, an amount it says (sans citation) was yielded by the two auctions of "broadcast licenses" to date.

PK/CU/OTI appear to be referring auctions of flexible use wireless licenses allocated in spectrum that had previously been allocated to television broadcasting, because the few auctions of actual television broadcast licenses have yielded only a few million dollars in total. If so, their proposition is simply bizarre. They contend that broadcasters should operate pursuant to highly specific technical rules, be limited to 6 or 12 downstream MHz per market, remain

capped at 39% coverage nationwide, not be allowed to expand coverage with improved facilities, suffer interference from secondary and unlicensed white space users, and operate under a bewildering compendium of additional obligations that have accrued over the decades. Yet in calculating the auction value of ancillary services, PK/CU/OTI argues broadcasters should be taxed based on the full value of wireless licenses that come with none of those limits or obligations and should even pay for white space spectrum to which no broadcaster is licensed. The fallacy of this argument is self-evident and betrays an unstated agenda that extends beyond ensuring fair recompense for the public.

The plain language of the statute controls. The value to be recovered is the auction value of the ancillary *services* provided on a paid or subscription basis.¹³ Those services, by definition, can only be provided via television broadcasters using facilities permitted by the FCC's extensive and highly constraining technical rules and while complying with myriad other rules that constrain operations, limit investment choices, and prohibit economies of scale commensurate with those enjoyed by wireless licensees. The correct question in setting the recovery maximum for a hypothetical push 500 kbps data service using isn't "how much would this station be worth at action if its license was converted to flexible use?" It is "how much would be paid at auction for rights to build facilaties to provide a 500 kbps push-only data service pursuant to the broadcast rules, including the technical rules, while meeting attendant public service obligations, including providing a free over-the-air locally-oriented television service". By this, the actual statutory metric, the FCC might reasonably conclude that bidders would pay little, if anything, at auction for the rights to provide such a service.

The FCC's work at this early stage is to create incentives for broadcasters to do the work and make the investments to create a marketplace for such services. Those incentives could

¹³ §336(e)(2)(b) specifics "the amount that would have been recovered had such *services* been licensed" pursuant to competitive bidding.

take many forms, including setting the initial fees very close to zero on the reasonable determination that the auction value for such services is very low before the market has been developed, and deferring all fees until those investments have been recovered. Reporting of receipts, even when no fees are payable, will give the Commission objective data on which to base fee revisions, as the statute requires it to do.¹⁴ Encouraging and facilitating investment in advanced broadcast Internet services is the best path to remittance of substantial ancillary service fees.

IV. The FCC Probably Doesn't Have Authority to Retain Ancillary Fees to Fund a Consumer Converter Program and Should Reject PK/CU/OTI's Bid to Use this Proceeding to Revise the Non-Degradation Requirement

BitPath applauds PK/CU/OTI's creativity in arguing that ancillary service fees should be retained and used to support an ATSC 3.0 converter program for consumers. We think the legal argument is a stretch. But beyond the FCC's legal authority, we see the proposal as something of a mixed bag that ultimately would have little impact. All things being equal, the sooner and more widely consumers have ATSC 3.0 capability, the better for broadcasters. But creation of an ambitious and massively expensive new government program to distribute converter boxes to millions of consumers – all funded by ancillary services fees – would create improper incentives for the Commission to manipulate the fees to achieve purposes beyond those delineated in the statute.

More important, though, is the fact that the lack of dedicated transition channels means the transition to ATSC 3.0 will have to proceed in phases in which stations hosting each other in different standards will be very capacity constrained. As a practical matter, broadcasters will be limited to ancillary services that require only very small amounts of capacity until such time as simulcasting can be ended. While BitPath plans to launch advanced services well before the

¹⁴ 47 U.S.C. §336(e)(2)(C).

transition is complete, we expect that some services will be provided at no charge, or at very low rates, in order to spur adoption. And the limited capacity available will mean limited opportunities for growth until substantially more 3.0 capacity comes online – which cannot occur until after 3.0 set penetration is already widespread. Simply put, by the time stations are earning substantial ancillary service revenues, the great majority of consumers will already be capable of receiving ATSC 3.0 broadcasts.

In making this proposal OTI and PK (but apparently not CU) express concern "that broadcasters are walking away from their promise to deliver NextGen services to the public." As a company that employs a dedicated, full time staff to helping broadcasters do the herculean task of launching ATSC 3.0 without transition channels, we find this distrust to be astoundingly out of touch with reality. Neither OTI nor PK has ever contacted BitPath to ask about our transition progress, to understand the service profiles and why they were chosen, or to get a handle on the immensely complicated task of launching an entirely new technology without disenfranchising viewers. Had they done so any legitimate fears would have been assuaged.

The industry's transition approach – adhered to in all BitPath managed transitions (and all other transitions of which BitPath is aware) – requires preservation of all programming in its original format in ATSC 1.0 so that no viewer is disenfranchised. Available ATSC 3.0 capacity is painstakingly allocated to ensure the highest possible quality while enabling, where possible, improvements such as HDR and superior robustness. To date, no broadcaster has discontinued or degraded a single program stream in any BitPath market, and none of the plans for the remainder of 2020 involves any loss or degradation of channels. FCC requirements aside, broadcasters simply will not suffer degradation of their television service – and thus compromise their core, bread-and-butter business – in order to launch new data broadcasting

¹⁵ PK/CU/OTI Comments at 8.

12

services. Our opening comments explain that the path to enduring data broadcast service will drive facilities upgrades that will greatly enhance – not degrade – over the air television service.

PK, OTI, and to a lesser degree, CU, appear to be unrecoverably stuck in a 20-something-year-old plot line in which broadcasters seek a free spectrum windfall and plan to diminish or discontinue television broadcast service in order to do something else with their spectrum licenses. But there never was a spectrum windfall. And after all these years there simply is no evidence to bear out the fear that broadcasters will abandon viewers. Over the last decade broadcasters have used their DTV licenses to launch *more* free-to-air channels, not to degrade them or take them away. And broadcasters transitioning to ATSC 3.0 have gone to great lengths to preserve all of that programming in ATSC 1.0 – vastly exceeding the FCC's simulcasting requirements - even while using all of the available ATSC 3.0 capacity to provide free-to-air television service.

The Commission should reject PK/CU/OTI's bid to use this proceeding to impose new non-degradation requirements on broadcasters. So doing would be beyond the scope of the NPRM, but the need for any such change would be unsupported – profoundly so – by the overwhelming evidence showing that broadcasters have greatly exceeded the FCC's service requirements. Even if the FCC believed it should set some new minimum standard for what qualifies as "advanced" television service, the notion that it should mechanically define "advanced" with reference to a certain pixel count specified in a 1996 technical standard is obvious folly.

Respectfully submitted,

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